

## WHAT IS CLAIMED IS

1. A vibration suppressing device adapted to be incorporated in an air hammer comprising an air hammering mechanism, the vibration suppressing device comprising:
  - a cylinder forming a front channel and a rear channel in communication with each other, at least one first air passageway defined in the cylinder and in communication with the front channel and at least one second air passageway defined in the cylinder and in communication with the rear channel;
  - a valve movably received in the front channel, the valve defining a bore and at least one third air passageways selectively alignable with the first air passageway;
  - a piston movably received in the rear channel and forming a projection;
  - a jacket mounted to and surrounding the cylinder to form an air chamber therebetween, the second air passageway being in communication with the air chamber; the jacket having a closed end facing the projection of the piston and defining a hole into which the projection is selectively received to block the hole;
- wherein when the air hammering mechanism is driven by compressed air, the compressed air is allowed to simultaneously flow into the valve via the first and third air passageways to move the piston in a first stroke whereby the projection of the piston is received into the hole and thus closing the hole for sealing the air chamber and wherein the compressed air is allowed to further flow into the air chamber via the second air passageway, compressibility of the air inside the sealed air chamber functioning to absorb vibration transmitted from the air hammering mechanism.